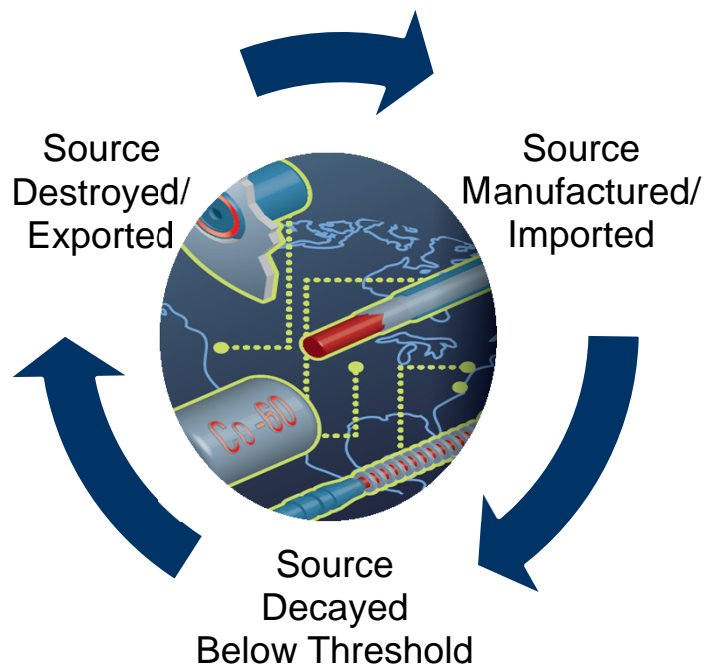


National Source Tracking System – NRC Update

Irene Wu
U.S. Nuclear Regulatory Commission



What is NSTS?



Transaction Reporting
 Transfer, Receipt, Import,
 Export



**Annual Inventory
 Reconciliation**

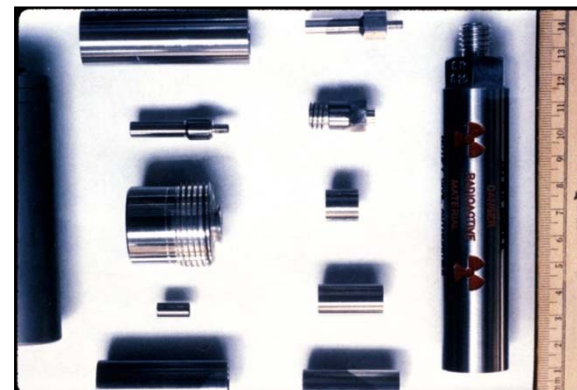
The relevant regulations that discuss the NSTS are found in 10 CFR § 20.2207 and state that each licensee who manufactures, transfers, receives, disassembles, or disposes of a nationally tracked source must complete and submit a National Source Tracking Transaction Report.

Nationally Tracked Sources

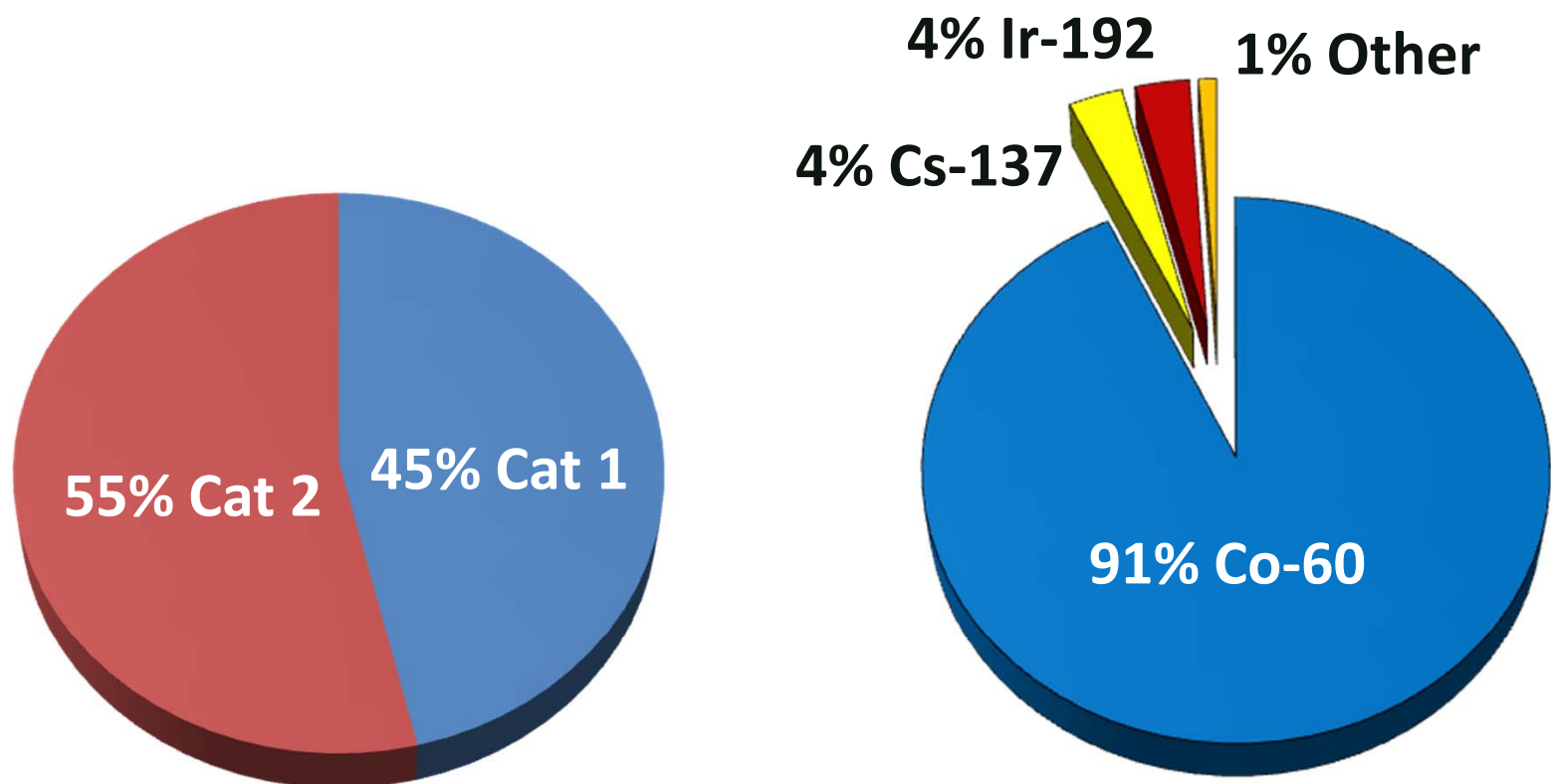
Radioactive Material	Category 1 (TBq)	Category 1 (Ci)	Category 2 (TBq)	Category 2 (Ci)
Actinium-227	20	540	0.2	5.4
Americium-241	60	1,600	0.6	16
Americium-241/Be	60	1,600	0.6	16
Californium-252	20	540	0.2	5.4
Cobalt-60	30	810	0.3	8.1
Curium-244	50	1,400	0.5	14
Cesium-137	100	2,700	1	27
Gadolinium-153	1,000	27,000	10	270
Iridium-192	80	2,200	0.8	22
Plutonium-238	60	1,600	0.6	16
Plutonium-239/Be	60	1,600	0.6	16
Polonium-210	60	1,600	0.6	16
Promethium-147	40,000	1,100,000	400	11,000
Radium-226	40	1,100	0.4	11
Selenium-75	200	5,400	2	54
Strontium-90	1,000	27,000	10	270
Thorium-228	20	540	0.2	5.4
Thorium-229	20	540	0.2	5.4
Thulium-170	20,000	540,000	200	5,400
Ytterbium-169	300	8,100	3	81

Examples

- Neutron sources for reactor startup (e.g., Pu-238/Be)
- Calibration sources (e.g., Cs-137)



Where We Are Today



NSTS History

2008
NSTS v1
deployment

2009
licensee
reporting
began

2010
1st Annual
Inventory
Reconciliation

2011
NSTS v2
deployment,
updated Form
748, security
categorization

2013
One Time
Password
(OTP) pilot

Focus on NSTS To-Date

- Extensive outreach efforts to encourage online usage
- Updated Form 748
- Temporary Job Site Regulatory Issue Summary
- Extensive effort to ensure data integrity
- Continuous improvement through maintenance releases, Help desk
- OTP deployment
- Integration with WBL and LVS

Updated Form 748

Submit by Email

NRC FORM 748 (5-2012) 10 CFR 20.2207		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0202		EXPIRES: 01/31/2016	
NATIONAL SOURCE TRACKING TRANSACTION REPORT							
1. LICENSEE INFORMATION							
A. LICENSEE NAME	B. LICENSE NO.	C. LICENSEE STREET ADDRESS	D. CITY	E. STATE	F. ZIP CODE		
2. TRANSACTION DATE (Only transactions completed on the same date may be reported together on this form)		3A. TRANSACTION INFORMATION		3B. TRANSACTION TYPE (Check all that apply)			
		<input type="checkbox"/> NEW <input type="checkbox"/> CORRECTION IF CORRECTION, PREVIOUS TRANSACTION DATE:		<input type="checkbox"/> REPORT SOURCE INVENTORY <input checked="" type="checkbox"/> TRANSFER <input type="checkbox"/> RECEIPT <input type="checkbox"/> DISPOSAL <input type="checkbox"/> NEW SOURCE MANUFACTURED <input type="checkbox"/> IMPORT <input type="checkbox"/> EXPORT <input type="checkbox"/> DISASSEMBLE			
4. PREPARER INFORMATION							
A. NAME OF PREPARER		B. DATE PREPARED	C. PREPARER PHONE		D. PREPARER E-MAIL (REQUIRED FOR CONFIRMATION)		
6. SOURCE TRANSFER DATA							
A1. RECEIVING LICENSEE NAME	B1. RECEIVING LICENSEE LICENSE NO.	C1. RECEIVING LICENSEE SHIPPING ADDRESS		D1. CITY	E1. STATE	F1. ZIP CODE	
G1. SOURCE MAKE	H1. SOURCE MODEL	I1. SOURCE SERIAL NUMBER	J1. ISOTOPE	K1. ACTIVITY AND UNIT	L1. ACTIVITY DATE	M1. WASTE MANIFEST NO. (For waste shipments only)	N1. CONTAINER ID (For waste shipments only)
O1. ESTIMATED ARRIVAL DATE	P1. COMMENTS						
WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.							

Transaction Reporting Challenges

- Failure to report transactions
- Inaccurate reporting of import/export transactions
- Reporting transactions for work at temporary job sites
- Reporting multiple sources as a single source
- Reporting transactions of “below threshold” sources
- Decay calculation discrepancies

Annual Inventory Reconciliation Challenges

- Adding or deleting source from inventory – provide missing documentation
- Changing source information
 - No device information
 - Include source certificate
- Changing license/contact information

NSTS Resources

- NSTS Help Desk 1-877-671-6787
NSTSHelp@nrc.gov
- NSTS Website
<http://www.nrc.gov/security/byproduct/ismp/nsts.html>
- NSTS Blog
<http://www.nrc.gov/security/byproduct/ismp/nsts/blog.html>